

INTEGRATED METALLIC ACCESS FOR HIGH PORT DENSITY DSLAM

Abstract

5 A multi-services access platform is presented for supporting metallic test access
in switching or multiplexing devices such as digital subscriber line access multiplexers
(DSLAMs). The multi-services access platform includes a chassis within which a
predetermined number of card slots are included. Each of the card slots includes a
number of input/output ports. A backplane runs along the chassis and includes a metallic
10 test access bus. The metallic test access bus is operable to selectively couple to one or
more input/output ports within the line card slots of the chassis to establish one or more
metallic test paths. A relay matrix may be used to provide the selective coupling for the
metallic test access bus, and the flexibility provided by the configuration of the relay
matrix supporting the metallic test access bus allows for a variety of different test access
15 ports (TAPs) to be supported. Specific TAP configurations may be configured that
support both a Safety Extra Low Voltage (SELV) rated stimulus and a Telecom Network
Voltage (TNV) rated stimulus such that local loops that support a variety of different
signaling protocols can be tested using the metallic test access bus either individually or
concurrently.